

REMARKS

In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application. This amendment is believed to be fully responsive to all issues raised in the December 30, 2003 Office Action. As stated above, Claims 1, 8, 13, 18, 23, 28 are currently amended, claims 32-39 are being added, and claims 1-39 are pending.

Rejection of Claims 8 and 12 under 35 U.S.C. §102(e)

In the Office Action mailed December 30, 2003, the Office rejected claims 8 and 12 under §102(e) as being anticipated by USPN 6,155,678 to Komplin et al., referred to herein as the Komplin reference.

Claim 8 (Independent)

Claim 8, as currently amended, recites *a printer cartridge comprising a storage medium operable using an electromagnetic beam*. The Komplin reference states:

[A]s the cartridges 300, 302, 304 and 306 are vertically positioned and inserted onto the cartridge body 366, the memory modules and support arms and fingers slide into position in slots 377, 379, 381 and 383 on the front panel 385 of the cartridge body 366 so that the memory modules are exposed for electrical connection to the printer.

Komplin at col. 8, lines 11-16.

As such, the Komplin reference does not disclose, teach or suggest use of an electromagnetic beam to read or write to a storage medium. Applicant therefore asserts that claim 8 is not anticipated by the Komplin reference and that claim 8 is patentable and nonobvious with respect to all references of record.

Claim 12

Claim 12 depends on claim 8 and for at least the forgoing reasons Applicant submits that claim 12 is patentable over the references of record.

Rejection of Claims 1, 2, 4, 6-9, 11-14, 16, 17 and 27 under 35 U.S.C.

§103(a)

5 In the Office Action mailed December 30, 2003, the Office rejected claims 1, 2, 4, 6-9, 11-14, 16, 17 and 27 under §103(a) as being unpatentable over USPN 6,155,678 to Komplin et al., referred to herein as the Komplin reference, in view of USPN 3,656,827 to Gamblin et al., referred to herein as the Gamblin reference.

10 To sustain a rejection of a claim under §103, the Office must make a factual showing that the claimed invention as a whole would have been obvious to one of ordinary skill in the art to which the subject matter pertains at the time of the invention. To establish a prima facie case of obviousness, three basic criteria must be met:

15 (i) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

(ii) there must be a reasonable expectation of success; and

20 (iii) the prior art reference (or references when combined) must teach or suggest all the claim limitations wherein the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP §2142 (citing In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991)).

25 Claim 1 (Independent)

Claim 1, as currently amended, is directed to "*a storage medium attachable to a replaceable component of an apparatus, the component serving one or more purposes other than data storage and the storage medium operable using an electromagnetic beam and comprising a*
30 *hologram.*"

Applicant submits that the Komplin reference and the Gamblin reference fail to disclose, teach or suggest the subject matter of claim 1, individually or in combination. The Komplin reference states:

5 [A]s the cartridges 300, 302, 304 and 306 are vertically positioned and inserted onto the cartridge body 366, the memory modules and support arms and fingers slide into position in slots 377, 379, 381 and 383 on the front panel 385 of the cartridge body 366 so that the memory modules are exposed for electrical connection to the printer.

10 Komplin at col. 8, lines 11-16.

As such, the Komplin reference does not disclose, teach or suggest use of an electromagnetic beam to read or write to a storage medium. Further, the Gamblin reference pertains to a storage system that includes a drum, which serves no purpose other than being part of the storage system
15 (see, e.g., col. 2, lines 26-30 and lines 70-75). Therefore, the Gamblin reference does not disclose, teach or suggest a storage medium attachable to a replaceable component that serves one or more purposes other than data storage.

Applicant can find no motivation or suggestion in the Komplin
20 reference or Gamblin reference that would lead one of ordinary skill in the art to combine these references and arrive at the subject matter of claim 1. The Komplin reference pertains to printer cartridge that has a memory module that requires a physical electrical connection to a printer and the Gamblin reference pertains to a holographic storage system that uses a rotating
25 drum, a component integral to the storage system. Further, Applicant finds no evidence as to a reasonable expectation of success in implementing the rotating drum storage system of the Gamblin reference as a substitute for the memory module of the Komplin reference.

In fact, Applicant respectfully submits that Komplin teaches away from
30 using a holographic storage element to store information. Specifically, Komplin discloses a memory element 90 that is "exposed for electrical connection to the printer." Therefore, Komplin already includes an

information storage that is aligned with electrical interconnect elements on a printer. There is no need for additional or alternate information storage means for the system disclosed by Komplin,

5 For at least the forgoing reasons, Applicant submits that claim 1, as currently amended, is nonobvious and patentable over the Komplin and Gamblin references and other references of record.

Claims 2, 4, 6, and 7

10 Claims 2, 4, 6, and 7 depend on claim 1 and for at least the forgoing reasons Applicant submits that claims 2, 4, 6, and 7 are patentable over the references of record.

Claim 8 (Independent)

15 As already mentioned, with respect to the Office's §102 rejection, the Komplin reference does not disclose, teach or suggest the subject matter of claim 8, as currently amended. Further, there is no evidence that would motivate or suggest combining, where Komplin actually teaches away from the Gamblin system, the Komplin and Gamblin references to arrive at the subject matter of claim 8. Thus, Applicant submits that claim 8, as currently
20 amended, is patentable over the references of record.

Claims 9, 11 and 12

25 Claims 9, 11 and 12 depend on claim 8 and for at least the forgoing reasons Applicant submits that claims 9, 11 and 12 are patentable over the references of record.

Claim 13 (Independent)

30 Claim 13, as currently amended, recites in relevant part "*a component that serves one or more purposes other than data storage*" and "*a R/W storage medium that interfaces with the R/W device using an electromagnetic beam*".

As already mentioned, the Komplin reference does not disclose, teach or suggest use of an electromagnetic beam and the Gamblin reference does not disclose, teach or suggest a component that serves one or more purposes other than data storage. In addition, there is no motivation to
5 combine the references, and in fact, Komplin teaches away from the system of Gamblin. For at least these reasons, Applicant submits that claim 13, as currently amended, is patentable over the references of record.

Claims 14, 16 and 17

10 Claims 14, 16 and 17 depend on claim 13 and for at least the forgoing reasons Applicant submits that claims 14, 16 and 17 are patentable over the references of record.

Claim 27 (Independent)

15 Claim 27 is original and recites: *A printer comprising components, at least one of the components having a laser storage medium attached thereto, wherein the storage medium is at least one of readable and writeable.*

The Komplin reference does not disclose a laser storage medium and
20 there is no evidence to support a motivation or suggestion to combine the Komplin and Gamblin references to arrive at the subject matter of claim 27. The Gamblin reference pertains to a storage system that includes a drum, which serves no purpose other than being part of the storage system (see, e.g., col. 2, lines 26-30 and lines 70-75). Applicant finds no evidence in the
25 Gamblin reference that would teach one of ordinary skill in the art about attaching a storage medium to a component of a printer. Further, Applicant finds no evidence as to a reasonable expectation of success in implementing the rotating drum storage system of the Gamblin reference as a substitute for the memory module of the Komplin reference. For at least these
30 reasons, Applicant submits that claim 27 is patentable over the references of record.

Rejection of Claim 3 under 35 U.S.C. §103(a)

In the Office Action mailed December 30, 2003, the Office rejected claim 3 under §103(a) as being unpatentable over USPN 6,155,678 to Komplin et al., referred to herein as the Komplin reference, in view of USPN 3,656,827 to Gamblin et al., referred to herein as the Gamblin reference, and further in view of USPN 6,446,177 to Tanaka et al., referred to herein as the Tanaka reference.

Claim 3

Claim 3 recites in relevant part a hologram that includes a company logo. The Office relies on the Tanaka reference to reject claim 3. However, the Tanaka reference fails to disclose, teach or suggest a hologram. The Office points to col. 34, lines 26-44 of the Tanaka reference, which states:

Although various modes of contrivance for protecting copyrights have been explained in the first to tenth embodiments, it is also possible to enable discrimination between memory cards including the function of copyright protection and other cards having no such function. There are various modes of discrimination. For example, written notice or logo applied onto an outer surface of a memory card to demonstrate that it has a function of copyright protection is also usable for this purpose. Alternatively, by making some rule on colors or patterns, they may be used to demonstrate that it has the function of copyright protection.

Tanaka at col. 34, lines 26-44.

While the Tanaka reference does not include the word "hologram", Applicant further asserts that this language does not suggest use of a hologram. Therefore, Applicant submits that the Tanaka reference when combined with the Komplin and Gamblin references fails to render the subject matter of claim 3 obvious. As such, Applicant submits that claim 3 is patentable over the Komplin, Gamblin and Tanaka references. Further,

claim 3 depends on claim 1 and Applicant asserts that it is therefore patentable for at least the reasons as presented for claim 1.

Rejection of Claim 5 under 35 U.S.C. §103(a)

5 In the Office Action mailed December 30, 2003, the Office rejected claim 5 under §103(a) as being unpatentable over USPN 6,155,678 to Komplin et al., referred to herein as the Komplin reference, in view of USPN 3,656,827 to Gamblin et al., referred to herein as the Gamblin reference, and
10 further in view of USPN 6,654,567 to Karakama et al., referred to herein as the Karakama reference.

Claim 5

 Claim 5 depends on claim 1 and for at least the forgoing reasons Applicant submits that claim 5 is patentable over the references of record.
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Rejection of Claims 10 and 15 under 35 U.S.C. §103(a)

 In the Office Action mailed December 30, 2003, the Office rejected claim 10 and 15 under §103(a) as being unpatentable over USPN 6,155,678 to Komplin et al., referred to herein as the Komplin reference, in view of
20 USPN 3,656,827 to Gamblin et al., referred to herein as the Gamblin reference, and further in view of USPN 5,812,156 to Bullock et al., referred to herein as the Bullock reference.

Claim 10

25 Claim 10 depends on claim 8 and for at least the forgoing reasons (see, e.g., response for claim 8 above) Applicant submits that claim 10 is patentable over the references of record.

Claim 15

30 Claim 15 depends on claim 13 and for at least the forgoing reasons (see, e.g., response for claim 8 above) Applicant submits that claim 15 is patentable over the references of record.

Rejection of Claims 18-26 and 28-31 under 35 U.S.C. §103(a)

In the Office Action mailed December 30, 2003, the Office rejected claim 18-26 and 28-31 under §103(a) as being unpatentable over USPN 5,506,611 to Ujita et al., referred to herein as the Ujita reference, in view of USPN 4,933,538 to Heiman et al., referred to herein as the Heiman reference.

Claim 18 (Independent)

Claim 18 recites in relevant part: "*A method of reading data from a storage medium, the data stored to the storage medium through use of an electromagnetic beam, the storage medium attached to a component that serves one or more purposes other than data storage, the method comprising*".

The Office refers to Ujita at col. 17, lines 11-25, which states:

"FIG. 13 shows another embodiment, in which the method of recording information on the ink cartridge differs from the embodiment shown in FIG. 12. In the present embodiment, information such as the ink jet driving conditions is encoded as a bar code 37 stuck to the housing portion of the ink cartridge, in place of the magnetic tape shown in the previous embodiment. Again in this case, as in the previous embodiment, the information such as the recording head driving conditions is successively read by a reading head 38 when the ink cartridge is inserted into the ink cartridge receiving portion 27 of the ink jet recording apparatus. In the present embodiment, the recording information medium need only be printed as a bar code, so that the medium can be manufactured relatively easily and an inexpensive ink cartridge can be provided." (col. 17, lines 11-25).

Thus, the Ujita reference discloses use of a printed bar code.

The Office states at page 5 of Office Action mailed December 30, 2003 that "Ujita fails to teach the detail of how to read, write and the emitting comprises laser emission." Applicant agrees. However, the Office then asserts that the Heiman reference fills the gap at col. 5, lines 25-34 and col. 6, lines 4-52. Applicant respectfully disagrees.

The abstract of the Heiman reference states "Apparatus for reading bar code symbols including a laser light source, an optical component for scanning a reference plane, and a sensor for detecting the light of variable intensity reflected from the target". Thus, the Heiman reference pertains to reading, not to writing. Indeed, the words "write" and "writeable" do not appear in the Heiman reference. As such, Applicant asserts that the Heiman reference does not disclose the subject matter of claim 18 and further that there is no evidence to suggest combining the Ujita and Heiman references to arrive at the subject matter of claim 18. Therefore, for at least some of the forgoing reasons Applicant submits that claim 18, as currently amended, is patentable over the references of record.

Claims 19-22

Claims 19-22 depends on claim 18 and for at least the forgoing reasons Applicant submits that claims 19-22 are patentable over the references of record.

Claim 23 (Independent)

Claim 23, as currently amended, recites: *A method of writing data to a storage medium attached to a component that serves one or more purposes other than data storage comprising:*

instructing a device, wherein the device is at least one of readable and writeable; and

emitting energy from the device, the emitting based on the instructing and the device positioned in proximity to the storage medium.

As already mentioned, the Ujita reference discloses use of a printed bar code. The Office states at page 5 of Office Action mailed December 30,

2003, "Ujita fails to teach the detail of how to read, write and the emitting comprises laser emission." Applicant agrees. However, the Office then asserts that the Heiman reference fills the gap at col. 5, lines 25-34 and col. 6, lines 4-52. Applicant disagrees.

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10 appear in the Heiman reference. As such, Applicant asserts that the Heiman reference does not disclose the subject matter of claim 23 and further that there is no evidence to suggest combining the Ujita and Heiman references to arrive at the subject matter of claim 23. Therefore, for at least some of the forgoing reasons Applicant submits that claim 23, as currently amended, is
15 patentable over the references of record.

Claims 24-26

 Claims 24-26 depend on claim 23 and for at least the forgoing reasons Applicant submits that claims 24-26 are patentable over the
20 references of record.

Claim 28 (Independent)

 Claim 28, as currently amended, recites in relevant part: "*installing a component that serves one or more purposes other than data storage in the*
25 *image forming device, the component having a storage medium attached thereto, the storage medium comprising stored information, the information stored to the storage medium through use of an electromagnetic beam*".

 As already mentioned, the Ujita reference discloses use of a printed bar code. The Office states at page 5 of Office Action mailed December 30,
30 2003, "Ujita fails to teach the detail of how to read, write and the emitting comprises laser emission." Applicant agrees. However, the Office then

asserts that the Heiman reference fills the gap at col. 5, lines 25-34 and col. 6, lines 4-52. Applicant disagrees.

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10 there is no evidence to suggest combining the Ujita and Heiman references to arrive at the subject matter of claim 28. Therefore, for at least some of the forgoing reasons Applicant submits that claim 28, as currently amended, is patentable over the references of record.

15 **Claims 28-31**

Claims 28-31 depend on claim 28 and for at least the forgoing reasons Applicant submits that claims 28-31 are patentable over the references of record.

20 **New Claims 32-39**

New claims 32-39, which are fully supported by the specification, have recitations that are allowable over Komplin, Gamblin, or the other cited references, either individually or by their combination.

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Conclusion

Claims 1-39 are pending and believed to be in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the present application. Should any issue remain that prevents
5 immediate issuance of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

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Dated: 3/30/04

A large, stylized handwritten signature in black ink, appearing to read 'Brian J. Pangrle', is written over a horizontal line.

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